

# **Personality and Psychological Adjustment during Cross-cultural Transitions: A study of the Cultural Fit Proposition**

by

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## ABSTRACT

This study explored the relationship between personality, cultural fit (similarity between sojourners and hosts), and psychological adjustment during cross-cultural transitions. One hundred and twenty four AFS student sojourners in New Zealand participated in the study and completed questionnaires which assessed extraversion, locus of control, allocentrism, tolerance of ambiguity, coping humour, and psychological adjustment. It was hypothesised that internal locus of control, tolerance of ambiguity and coping humour would be significantly related to psychological adjustment but that extraversion and allocentrism would be affected by cultural fit; i.e., a host-sojourner match. In addition to performing zero order correlations between personality variables and psychological adjustment, cultural fit was examined by relating discrepancies between sojourner personality and host culture norms (provided by a comparative sample of 146 New Zealand secondary students) to psychological adjustment. The results did not support the concept of culture fit. While personality discrepancies were unrelated to mood disturbance in AFS students, internal locus of control, coping humour, and extraversion were significantly linked to diminished mood disruption. Methodological and conceptual problems and avenues for further research are discussed.

# INTRODUCTION

## Culture Contact

In this age of satellite telecommunications our planet has been reduced to the status of "global village". International neighbours who are fifteen hours away by aeroplane are now only seconds away by telephone. Despite this shrinking of physical distance by technology, cultural contact becomes problematic when international travellers are involved in continuous and first hand interaction with the indigenous people of another culture.

This type of interaction often results in cultural changes for both the travellers and the indigents. The Social Science Research Council (1954) has labelled this phenomena of interaction and change, "acculturation". Berry's (1990) model of acculturation describes the process of this phenomena and how it may result in altered psychological and cultural states. The dynamic process of contact may be stressful and demanding during initial contact but learning how to cope with the problems and stresses involved may lead to a new state of stable behaviours and attitudes for both the traveller and the indigent.

Theoretically, host and travelling cultures influence each other in terms of behaviour, mores, language and other cultural dimensions but the normal pattern of interaction results in the host culture dominating the travelling culture in a "donor-receptor" relationship (Berry, 1990). The receptor culture becomes the acculturating group and is influenced and changed by the donor culture. The changes are usually greater for the acculturating group than the dominant group: e.g., the adoption of local customs and language. However, at the individual level, the degree of acculturation is mediated by both personal factors

and situational factors. Personal factors include the person's cognitive appraisal of the situation or their ability to deal with the inherent stress, while situational factors include differences between home and host cultures (Chataway and Berry, 1989) or the individual's status as an international traveller (e.g., student, refugee, migrant).

### **International Travellers**

International travellers can be considered to belong to one of four broad categories; migrants, refugees, tourists or sojourners. These categories may be determined by two criteria: the travellers' intentions and the duration of their transition. Migrants are people who wish to relocate to a new culture permanently. Refugees are people who uproot, often involuntarily, and are forced to travel to a new culture in order to escape their old one. Their expected length of stay in the new culture is unknown. Tourists are people who travel to a new culture for holidays and then return to their own cultures after a short stay. Sojourners are people (e.g., diplomats, international businesspeople, peace workers, international students) who travel to a new culture to attain a specific goal and then return to their own cultures having achieved their goal. A sojourners length of stay at a new place may vary from situation to situation but it is always temporary. Thus, one significant demographic factor in the acculturative process is traveller status.

Tourists may experience little acculturative stress because they do not have to engage as intimately with the general cultural milieu as do other international travellers (Smith, 1957; Triandis and Vassiliou, 1967). In contrast, refugees may experience the greatest acculturative stress because their choices are limited and they have so little control over their lives (Berry, Kim, Minde, & Mok, 1987). Sojourners have the



unusual problem of reexperiencing acculturative stress on re-entry to their home cultures (Adler, 1981).

Thus the individual's experience of acculturative stress will differ depending on their category of international traveller. Student sojourners are one of the more widely studied group of sojourners and are a major sub-group of sojourners. To be precise, student sojourners are individuals who reside in a foreign country in order to participate in both the host countries education system and the new cultural milieu, but with the intention of returning to their home culture having obtained their goals (e.g., PhD.). Not only do student sojourners have to cope with a new cultural milieu but they must also deal with a new education system which is often in a new language.

If international students (or any category of international traveller) find that they are having great difficulty in adjusting to the demands of the new cultural milieu, then they are considered to be in culture shock.

## **Culture Shock**

### **Definition**

"Culture shock" was the term coined to both describe and explain the problems sojourners experience in a new culture (Oberg, 1960). Oberg found that Swedish Fullbright scholars exhibited a range of maladjustive psychological and behavioural problems while studying in the United States. He noted that these problems could be divided into six categories: "strain" from the psychological demands of adaptation, "sense of loss" in relation to friends, status, etc., "rejection" by and/or rejection of members of the new culture, "confusion" in roles, values, self-identity, "nonplus" after becoming aware of the cultural differences, and

"feelings of impotence" from not being able to cope with the new environment.

Unfortunately, by using the term culture shock to both describe and explain the adjustment problems of sojourners, this term has become a tautology. Different authors have used the same construct as both dependent and independent variables. For example, Ruben and Kealey (1979) assessed effectiveness of interaction with host nationals as an operationalisation of culture shock. In contrast other authors have utilised effectiveness of host interaction as an independent variable to assess culture shock (e.g Hammer, 1987; Martin, 1987).

Thus the conceptual confusion of the term "culture shock" has resulted in wide variety of definitions being applied to the phenomena of distress experienced by sojourners. Church (1982) in an earlier review article had attempted to clarify the confusion by describing culture shock as a normal process of adaptation to cultural stress; i.e., a process of cross-cultural adjustment. However subsequent researchers have used the terms adjustment, adaptation, acculturation, assimilation and effectiveness seemingly interchangeably to describe the response of people to the adverse phenomena they experience when living in a foreign culture (Hannigan, 1990).

Regardless of the terminological confusion, the underlying construct first described by Oberg as culture shock has proven to be fairly robust. The cross-cultural literature has revealed a variety of factors that consistently relate to the alleviation of psychological and behavioural problems that arise from making cross-cultural transitions.

### **Factors Relating to Culture Shock**

Many models and theories have been developed and tested in order to explain the relationship between geographical movement and

psychological well being. Furnham and Bochner (1986) have noted that despite the breadth of theorising and diversity of models, the popular approaches to culture shock are not necessarily mutually exclusive. The implication is that the process of sojourner adjustment is a highly complex phenomenon and that many variables impact on the adjustment process.

Theorising about the adjustment process during cross-cultural transitions has led to the categorisation of three areas that impact on adjustment outcome: demographic factors, social interaction factors and personality factors. Demographic factors include variables such as language fluency (e.g., Di Marco; 1974, Gullahorn & Gullahorn 1962; Hammer, 1987; Perkins, Perkins, Guglieimino, & Reiff, 1977; Ward & Kennedy, 1992) which is positively related to satisfaction with intercultural relationships. Prior cross-cultural experience has also been cited in the literature as an indicator of cross-cultural adjustment (e.g., Deutsch, 1970; Klineberg and Hull, 1979; Martin, 1987; Martin & Rohrlich, 1991). Research findings typically indicate that prior cross-cultural experience is conducive to general adjustment during cross-cultural transitions.

The role of social interaction variables has also been widely investigated; e.g. Argyle's (1982) social competence theory makes a comparison between sojourners and socially inadequate indigents. Being incognizant of social conventions results in the sojourner being unable to influence people in a 'normal' manner. Thus by acquiring the necessary social skills the sojourner would become socially competent (able to influence people) and participate appropriately in the cultural milieu.

To test this theory Furnham and Bochner (1982) constructed the 'social situations questionnaire' (SSQ) and measured the relationship

between social competence and cultural distance. By grouping the foreign subjects into 'near', 'intermediate', and 'far' groups on the basis of geography, a pattern of results emerged that indicated the greater the cultural distance, the greater the social difficulty. However there was an aberration in the results with the 'near' group of foreign students experiencing slightly less social difficulty than a comparison group of host nationals.

It may be that demographic and interpersonal factors interact to predict adaptation to a cross-cultural transition. Okazaki-Luff (1991), for example, found that a mediating factor in attaining social competence is the ability to communicate. Okazaki-Luff claims that Japanese sojourners fail to form relationships with host nationals because of their poor ability to communicate. Instead they form co-national networks and thus do not have the opportunity to learn the appropriate social skills necessary to achieve social competence.

Another social interaction variable often cited in the literature is the presence/absence of a social support network (both with indigents and other sojourners) which relates to the probability of physical and mental illness (Hammer, 1987). A social support network enables individuals to place themselves in a culture in terms of appropriate behaviours and values while simultaneously providing them with security and nurturance. Thus, after leaving a social support at home, sojourners must establish a new network in the host country. Forming a social network with other sojourners from their own country will enable them to attain psychological adjustment but their socio-cultural adjustment will be impaired (Kang, 1972). More recently Ward and Kennedy (1992) found that lack of satisfaction with host national relationships resulted in increased social difficulty. Earlier, Stone Feinstein and Ward (1990) reported similar findings; that high quality of

relationship with husband and high quality of superficial encounters with locals predicted better psychological adjustment. Attaining a social support network that includes both other sojourners and hosts appears to be most conducive to mental health and sociocultural adjustment (Ward & Kennedy, in press).

The third broad category - personality factors, has probably received the greatest amount of attention from researchers seeking explanations for culture shock. More effective sojourner adjustment has been related to such diverse variables as less authoritarianism (Chang, 1973), increased personal flexibility (Gullahorn and Gullahorn, 1962), and an internal locus of control (Ward and Kennedy, 1992). However the use of personality as a predictor of cross-cultural adjustment has received criticism in the literature due to its lack of consistent successful prediction.

## **Early Research on Personality and Adjustment**

### **Research Findings**

Much of the early personality research on cross-cultural transition and adjustment evolved from studies of American Peace Corps volunteers in the 1950's and 1960's. At that time personality traits were one of the major factors considered in the selection of Peace Corps volunteers. Extraversion received particular attention and was viewed, in conjunction with an integrated personality, eclectic value system and demonstrable sensitivity towards others, as the hallmark of a "universal communicator" (Gardner, 1962). These traits and values were assumed to be indicative of open-minded persons who were better suited to successful cross-cultural adaptation than closed minded or ethnocentric individuals.

Unfortunately, these assumptions about personality and cross-cultural adjustment were not always borne out in the literature. For example, ambitious task-oriented problem solvers, often ignored the importance of tradition and social relationships in developing countries and found both job performance and personal adjustment difficult (Ruben & Kealey, 1979). Administrators of voluntary service programmes gradually became aware that both personality and situation should be considered in the prediction of successful adaptation and incorporated into the selection process. The importance of both personal and situational variables was also noted by Church (1982) in his review of research on cross-cultural adjustment.

Despite some difficulty with personality research and cross-cultural transition, a number of personality and value domains did appear to predict successful adaptation in a new cultural milieu. Harris (1973) found that the traits of patience, tolerance, courtesy and an interest in nationals differentiated successful Peace Corps Volunteers from early returnees. Hammer, Gudykunst, and Wiseman (1978) also view the trait of being non-judgemental as an essential facet of the successful sojourner who has a "third world perspective"; i.e. they are able to view their new culture from neither their home nor host culture perspective but rather from one based on their own cultural sensitivity and social adroitness.

Nevertheless, research on personality and cross-cultural adjustment has been somewhat disappointing due largely to both methodological and conceptual problems.

### **Problems with Research on Personality and Adjustment**

It is apparent from the literature on personality and adjustment that two major problems have contributed to the lack of consistency in

this research area. They are: 1) the diversity of adjustment indicators, and 2) the failure to consider the personality-situation interaction.

Variability of adjustment indicators has been one methodological problem that has been apparent in research with Peace Corps volunteers (e.g., Di Marco, 1974; Gordon, 1967; Harris, 1972). Consistent results are hard to achieve when the concept of cross-cultural adjustment varies from researcher to researcher. Operationalisations of adjustment have included, for example, field performance ratings (Hare, 1966) ratings of job competence (Wrigley, Cobb & Kline, in David, 1973), and final selection or rejection for overseas duty (Gordon, 1967). In addition to the fact that few of the Peace Corps studies actually obtained significant results between predictor and criterion variables, those studies that did display a moderate relationship between personality and performance, were unable to be replicated consistently (David, 1973).

A variety of adjustment indicators have also been utilised in more recent research. Adler (1975), for example, considered the acquisition of cultural knowledge to be an appropriate measure of adjustment. Abe and Wiseman (1983) viewed adjustment in terms of the ability to establish and maintain relationships. Both cognitive and social indicators of adjustment were considered to be important by Grove and Torbiorn (1985), who claimed that to be socially competent and to have the confidence that one's perception of the environment was accurate, were indicators of adjustment.

The second major problem with previous personality research was the lack of acknowledgement of the person-situation interaction. Researchers failed to consider the role of situational influences when assessing the role of personality in cross-cultural adjustment. However, once the issue of individual differences in relation to situations is addressed, the person situation does not appear to be so problematic.

Di Marco (1974) noted in his study on the relationship between stress and adjustment in cross-cultural transitions, that individual differences exist in how stressors and situations are perceived. Given that personal dispositions may interact with situational factors, it may be possible to predict the level of adjustment of sojourners if both the nature of the culture and the nature of the sojourner are known. For example, Gardner (1962) observed in reference to expectations, that "helpers" from countries such as the United States were probably the least capable of helping people in the third world because of the necessity of a large attitudinal shift. People from a technologically advanced country going to an underdeveloped country would need to make a large change in attitude. In contrast, a "helper" from a developing country would be required to make a smaller attitudinal change. Large changes tend to be more stressful than smaller changes for individuals (Lazarus, 1966). A demonstration of the way in which stress and degree of change are related, is found in the cross-cultural literature in a study by Ward and Searle (1991). They reported that a multicultural sample of students from 42 countries experienced less psychological disturbance when they perceived a smaller cultural distance between their own cultures and New Zealand.

The implication from the Ward and Searle study is, that if a cultural fit is obtained between sojourner and culture, the likelihood of adjustment during cross-cultural transitions is greater.

### **Adjustment during Cross-cultural Transitions**

As noted earlier, one of the major problems of early personality research was the confusion of outcome indicators. To understand the concept of adjustment requires conceptual elaboration. Searle and Ward(1990) noted the theoretical diversity of explanations of culture



shock, but observed that there were three major paradigms in the study of cross-cultural transitions; the clinical perspective, social learning models, and social cognition approaches. They proposed that all three have a role in the prediction of cross-cultural adjustment but that there was an implicit bifurcation of adjustment into a sociocultural and psychological components. This model has been validated with Malaysian and Singaporean students in New Zealand (Searle & Ward, 1990; Ward & Kennedy, 1993c), Malaysian students in Singapore (Ward & Kennedy, 1993c), New Zealand adults in Singapore (Ward & Kennedy, 1992), British residents and sojourners in Hong Kong (Ward & Kennedy, 1993a), and with New Zealand American Field Scholarship students in 23 different countries (Ward & Kennedy, 1993b).

Sociocultural adjustment refers to the ability of the individual to "fit in" or negotiate the new culture. This involves being able to perform mundane tasks such as catch a bus, shop or more complex interactions such as form close relationships with host nationals. Psychological adjustment is a measure of a sojourner's mental health. It refers to levels of well-being or satisfaction with one's new culture. These two domains of adjustment are related but previous research has shown that different variables will affect each outcome. Searle & Ward (1990) for example, found that psychological adjustment is predicted by personality, life changes and social support while sociocultural adjustment is dependent on cultural distance and expected difficulty. However, this research is concerned solely with the relationship between personality and psychological adjustment.

## **Theoretical Framework for Studying Personality and Psychological Adjustment: Stress and Coping.**

According to Lazarus (1966) stress is the physical and psychological experience we have when dealing with an external threat. The threat for sojourners is the unfamiliarity of a cross-cultural sojourn: i.e., the loss of things familiar, the loss of social support networks, and the confusion engendered by transforming from a cultural sophisticate to a cultural neophyte (Argyle, 1982). Their response to stress may be measured in terms of their psychological adjustment to their new culture.

As Trumbull and Appley (1986) noted, the individual is maintained by three systems that provide the means for dealing with stressors: the psychological, the physiological, and the social. These subsystems impose structure and provide support for the individual. Thus by measuring an individual's psychological adjustment during a cross-cultural transition, an index of stress is obtained.

Lazarus (1966) observed that coping processes may depend on capacities of the individual, which may or may not be within their response repertoire and the aspects of the situation. Therefore persons who possess personality traits that enable the individual to cope with stress should experience less stress than those sojourners who do not possess those personality traits. Indeed, psychological research has demonstrated that internal locus of control (e.g., Ross, Mirowsky & Cockerham, 1983; Seipel, 1988) self-efficacy (e.g., Hawes & Kealey, 1981; Smith, 1966,) , and flexibility (e.g. Gullahorn & Gullahorn, 1963; Ruben & Kealey, 1979) facilitate psychological adjustment in a variety of groups and situations. If the adjustive nature of such traits do generalise over groups and situations, and these dispositions maintain their cross-situational consistency, they may possess pancultural adaptive value.

Alternatively, personality traits may maintain their stress-relieving properties in a limited range of situations, for example, when sojourner traits are congruent with those of hosts. If this is the case, the adaptive value of personality traits may be more culture specific.

## **Persons and Situations: Culture Specific and Pancultural Predictors of Psychological Adjustment**

### **Cultural Fit**

Research has demonstrated that cultural similarity enhances sojourner's sociocultural adaptation to a new cultural milieu. Similarly, it may be the case that psychological similarity facilitates psychological adjustment to a new environment. For example, Ward and colleagues found that extraversion facilitated the psychological adjustment of Malaysian and Singaporean students in New Zealand (Searle & Ward, 1990) whereas it impaired psychological well-being of Anglo American and European sojourners in Singapore (Armes & Ward, 1989). They speculated that this discrepancy may be related to host culture norms and the perceived value of extraversion across cultures. As a sojourner more closely approximates the host norm (whether the approximation is in terms of more or less extraversion), the better their psychological adjustment. In a more recent unpublished study of Americans in Singapore, C. Ward and H. Chang (personal communication, 9 February, 1994) found that the lower the discrepancy between a sojourner's level of extraversion and the host culture norm, the better their psychological adjustment.

These data support a cultural fit proposition, that the adaptive value of at least some personality traits is affected by the match between

host and sojourner. This is also consistent with acknowledgement of both person and situational variables in the adjustment process.

### **Panculturalism**

A further corollary to the culture fit concept is that there are some personality traits that may be adaptive regardless of home or host culture: i.e. universally adaptive dispositions; e.g. Britt (1983) found in his study of adaptive factors for overseas missionaries that those who scored high on flexibility tended to adjust better than those who did not, regardless of home or host culture. Cognitive flexibility has been described as effective in reducing stress (Jaremko, 1984). Kealey (1989) noted in his review article on cross-cultural effectiveness that several personality traits had consistently proven to be predictive of success in other cultures. Researchers who studied Peace Corps volunteers, overseas businessmen, technical assistance personnel, and military and religious personnel in many cultures found that empathy, flexibility, tolerance, openmindedness and a positive self-image related positively with cross-cultural success (Kealey & Ruben, 1983).

### **This Study**

The study reported here examines the personality and psychological adjustment of sojourners in relation to cultural fit and pancultural models of cross-cultural adaptation. Of particular interest are tolerance of ambiguity, the use of humour to cope with stress (coping humour), locus of control, extraversion, and allocentrism.

## Personality Variables

Tolerance of Ambiguity. Tolerance of ambiguity may be defined as "the tendency to perceive ambiguous situations as desirable" (p.29, Budner, 1962). An ambiguous situation is one which may be defined as lacking structure or categorisability by the individual because of lack of cues. Budner goes on to note that it is possible to identify two such possible situations: a complex new situation in which there are a great number of cues to be taken into account or a completely new situation in which there are no familiar cues; i.e situations characterised by novelty or complexity. Thus people who are highly tolerant of ambiguous situations should adjust to the novelty and the complexity of a cross-cultural sojourn more readily than those who are not highly tolerant of ambiguity. For example, Cort and King's (1979) study with American sojourners in East Africa revealed that the more intolerant of ambiguity they were, the greater the psychological distress they experienced.

Gudykunst's (1985) theoretical and empirical work on uncertainty reduction is akin to the study of tolerance of ambiguity and cross-cultural adjustment. His research is concerned with the ways in which people deal with uncertainty; however, his writings are concentrated on interpersonal relations whereas the tolerance of ambiguity research is broader and also encompasses person-situation interactions. In the intercultural context Gudykunst (1985) has demonstrated that uncertainty reduction facilitates the initiation and maintenance of social relations with host nationals. It also plays a mediating role between intercultural social contact and psychological adjustment of student sojourners (Gao & Gudykunst, 1990).

It would appear from the research that tolerance of ambiguity serves to enhance people's ability to cope with stress either directly or in a mediational fashion, which in turn increases psychological adjustment.

As sojourners have to deal with complex and novel environments whenever they enter a new culture, it would seem likely that having a high tolerance of ambiguity would enable a sojourner to adjust to any culture.

Coping Humour. Several authors have demonstrated a positive relationship between coping humour and stress reduction (Bizi, Keinan, & Beit-Hallahmi, 1988; Labott & Martin, 1987; Nezu, Nezu & Blissett, 1988). The ability to indulge in sudden, surprising shifts of cognitive processing allows the individual to distance themselves from the immediate threat of a stressful situation and therefore to reduce the often paralysing effects of anxiety and helplessness (O'Connell, 1976). People who enjoy humour may alter their perceptions of stressful situations, rendering these circumstances less stressful.

While there is a substantial Anglo-American literature on the relationship between mental health and the role of humour in alleviating stress (e.g., Dixon, 1980; Lefcourt and Martin, 1986; Nias, 1981; Safranek & Schill, 1982) there appears to be a dearth of cross-cultural research into the effects of coping humour on psychological adjustment during cross-cultural transitions.

Nevertheless researchers have observed that humour is a phenomenon that exists in many cultures. In reference to joking relationships<sup>1</sup>, the nature of the relationship may differ between cultures but it functions as a means of stress-relief in many cultures (Haig, 1988). For example, in Volta, West Africa it serves as a safety valve by displacing anger between inlaws. In the United States, longshoremen exchange jokes, insults and obscenities which seems to defuse the tension from the dangerous occupation of unloading ships.

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<sup>1</sup>These are formalised playful behaviour relationships between two individuals who recognise special kinship or other types of bonds between each other.

Despite the fact that humour manifests in different styles in different cultures, it appears that using humour to cope with stress would retain its adaptive function in most cultural contexts. Although this has not been researched in connection with cross-cultural transitions specifically, it is likely that people who use humour to cope, could diminish stress and enhance psychological adjustment regardless of culture of origin or culture of sojourn.

Locus of Control. Locus of control, derived from Rotter's (1966) work on generalised expectancy of rewards, is a popular construct in contemporary personality and clinical psychology. Although originally proposed in the context of social learning theory, the initial distinction between internal and external locus of control has been expanded and refined in cognitive approaches to personality and social psychology. Along these lines, an internal locus of control refers to the perception that life events are contingent upon one's behaviour and under one's personal control. External locus of control, by contrast, relates to the perception that these events are not dependent upon one's behaviour but are contingent upon the other factors such as fate, luck or chance.

The clinical literature has demonstrated a consistent link between external locus and self-deprecation, mood disturbance, neuroticism and psychosomatic disorders. These patterns have also held up, for the most part, in cross-cultural investigations of locus of control and mental health (Dyal, 1984) as well as in studies of personality and cross-cultural adaptation. Kuo, Gray, and Lin (1976), for example, found that an external locus of control predicted psychiatric symptoms in Chinese immigrants in the USA. The same finding was replicated with Asian immigrants in the USA several years later by Kuo and Tsai (1986). Korean immigrants in the USA experienced lower levels of life satisfaction if they possessed an external locus of control (Seipel, 1988).

More recent research by Ward and Kennedy (1992, 1993b, 1993c) has revealed a consistent relationship between internal locus of control and psychological adjustment. Malaysian and Singaporean students in New Zealand, Malaysian students in Singapore, New Zealanders in Singapore, and New Zealand students in 23 different countries all experienced greater psychological adjustment if they possessed an internal locus of control.

Due to the multicultural consistency borne out by the literature, it is expected that having an internal locus of control is conducive to the psychological adjustment of sojourners regardless of either their country of origin or their country of sojourn.

Extraversion. Extraversion refers to a biologically determined behavioural style characterised by an underaroused nervous system (Eysenck, 1986). Extraverts combat their low levels of arousal by seeking stimulation. The archetypal extravert is sociable, gregarious and impulsive. In contrast introverts are characterised by overaroused nervous systems and do not require as much external stimulation as extroverts. The archetypal introvert is introspective, reserved and prefers to plan (Eysenck & Rachman, in Mischel, 1984). Extraversion is one of the most widely researched personality domains in the cross-cultural context. Eysenck and colleagues have demonstrated the cross-cultural validity of the extraversion dimension, the reliability and validity of the measurement instrument, and both similarities and differences in the levels of extraversion across various cultural groups. For example, cross-cultural similarities have been found between Norwegian adults and English adults (Eysenck & Tambs, 1990), and between Black South African students and Canadian students (Mwamenda, 1991). Differences have also been demonstrated cross-culturally, e.g.; Finnish adults were more extravert than their English counterparts (Eysenck & Haapasalo, 1989),



while Czech adults were less extravert than the English normative sample (Eysenck & Koseny, 1990).

Extraversion was once noted as being a mark of the universal communicator (Gardner, 1962). However more recent studies have shown its variability in predicting cross-cultural adjustment for sojourners. Van Den Broucke, De Soute and Bohrer (1989) found that extraversion was one of several personality traits that predicted a successful sojourn for Benelux students in the United States. In contrast Padilla, Wagatsuma and Lindholm (1985) found no relationship between extraversion and psychological adjustment of Japanese migrants to the United States.

Ward and colleagues found evidence of the culture specific nature of extraversion in relation to cross-cultural adjustment. Extraversion as a predictor of psychological adjustment varied in direction dependent upon sojourner group and host culture. Armes & Ward (1989) found that extraversion was related to higher psychological distress for British expatriates in Singapore, while Searle & Ward (1990) found that extraversion was related to greater psychological adjustment for Singaporean and Malaysian students in New Zealand.

Allocentrism. Allocentrism and idiocentrism are terms used to describe collectivist and individualist personality orientations. Allocentrics tend to be group oriented, placing greater emphasis on ingroup or collective needs and goals. Idiocentrics, by contrast, value autonomy and independence, and personal goals over group objectives.

Recent research has demonstrated considerable individual differences in idiocentrism-allocentrism across cultural groups. In the main, people from Asian and African cultures tend to be more allocentric than those from European and American societies (Triandis, 1989). These differences have consequences for psychological and

behavioural processes. For example, Markus and Kitayama (1991) have reviewed comparative research between Japanese and Americans which describes the impact of idiocentric and allocentric self-concept on emotional, motivational and cognitive processes.

In terms of social interactions Wheeler, Reis and Bond (1989) found that students from Hong Kong (allocentrics) had lengthier but less social interactions with fewer people and displayed greater self and other disclosure than did Americans (idiocentrics). Allocentrics tendency to indulge in more intense interaction with an in-group results in a greater reliance on the social subsystem in times of stress. Thus when allocentric sojourners remove themselves from that social support, they are left with fewer resources to cope with the difficulties of a cross-cultural transition (Crandall, 1980).

However, as idiocentrism/allocentrism affects a variety of psychological processes, it may be that a match between host and sojourner cultures facilitates adjustment during cross-cultural transitions. Indeed a study by Bhawuk and Brislin (1992) into intercultural sensitivity with foreign and local students in Hawaii, revealed that the ability to interact appropriately and effectively (in either an allocentric or idiocentric manner) depending on the type of culture, led to better intercultural interaction.

## **Rationale**

The concept of culture fit is apparent from a wide variety of multicultural studies in the area of cross-cultural transitions. It would appear that a match (good cultural fit) between a sojourner's personality and the host norm will result in psychological adjustment for the sojourner. A corollary to cultural fit is panculturalism which refers to the adaptational quality of personality across cultures: i.e., if a particular

trait is positively related to psychological adjustment in any culture, irrespective of the sojourners home culture, then the trait appears to have pancultural utility<sup>2</sup>. This study will contribute to the cross-cultural transition literature by the incorporation of person-situation variables in cross-cultural research and the exploration of the culture fit concept.

By administering a personality inventory to a multinational sample of student sojourners in New Zealand, I intend to explore and extend the concepts of culture fit and panculturalism. I expect that similarities between sojourners and hosts on the variables of allocentrism and extraversion will be positively related to psychological adjustment and that this relationship will be illustrative of culture fit. Alternatively, the variables of internal locus of control, the use of humour to deal with stress and tolerance of ambiguity, regardless of their similarity or dissimilarity to host culture norms, should be associated with psychological adjustment. If this is the case, the findings would be consistent with a pancultural view of the adaptive functions of these personality domains.

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<sup>2</sup>It must be noted that this study cannot prove the existence of panculturalism. Due to the design of this research (a multicultural sample of sojourners in one country), significant results will lend limited support to the concept of panculturalism by demonstrating that the relationship between personality and adjustment is independent of host-sojourner match.

## Hypotheses

1a). Use of humour for coping with stress, tolerance of ambiguity, and internal locus of control will be associated with greater psychological adjustment in foreign students.

b). Discrepancies between sojourners and host culture norms on these variables will not be related to psychological adjustment.

2a). Greater similarities in allocentrism and extraversion between sojourners and hosts will be associated with enhanced psychological adjustment.

b). Extraversion and allocentrism will not be directly related to psychological adjustment.

## METHOD

### Subjects

The participants in this research were comprised of two groups; a survey sample and a normative sample.

The survey sample consisted of 124 students (49 males and 75 females) participating in the American Field Service (AFS) programme in New Zealand. Students ranged in age from 15 to 18 years with a mean of 16.67 years ( $SD=0.64$ ).

AFS are a world wide non-profit organisation established after World War I to foster international friendship and to promote the exchange of ideas and sharing of cultures on a daily living basis. Participants are always high school students who are placed with host families during their AFS study abroad.

Subjects came from the following sixteen countries: Argentina, Brazil, Canada, Chile, Costa Rica, Denmark, Finland, Hong Kong, Indonesia, Japan, Malaysia, Norway, Puerto Rico, Sweden, Thailand, United States of America. Students had been resident in New Zealand between four and 16 weeks at the time of questionnaire completion ( $M=7.52$ ,  $SD=1.46$ ). Students lived with host families all over New Zealand: as far north as Okaihau in Northland and as far south as Invercargill in Southland.

Seventy per cent of the students had received some form of cross-cultural training prior to arrival in New Zealand. Seventy-three per cent of the students described their English ability as "good" or better.

The New Zealand normative sample of 146 subjects included 58 males and 88 females from three Christchurch high schools. Their average age was 16.88 years ( $SD=0.48$ ).

## Materials

A seven page questionnaire was utilised in this research. It contained personal and demographic information, personality measures; extraversion, allocentrism/idiocentrism, tolerance of ambiguity, coping with humour scale, locus of control and the dependent measure of psychological adjustment. See Appendix 1.

Extraversion was measured by a sub-scale of the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975). Subjects respond yes/no to 21 questions concerning outgoing, sociable behaviours. Scores range from 0-21 with higher scores indicating greater extraversion. This scale has proved to be reliable and valid across many of the cultures represented in this research (Lynn, 1981).

Allocentrism/Idiocentrism was measured via Singh's individualism/collectivism scale (R. Singh, personal communication, 12 January, 1992,). Idiocentrism is a personality measure of individualism and applies to those who describe their self-identity as independent of groups. Allocentrism in contrast, is a personality measure of collectivism and reveals the individual who defines their self-identity in terms of their place in groups (Hui, 1988). The scale consists of 24 statements; e.g., "one should enjoy meeting and talking to one's neighbours". Subjects indicate their response on a 7 point agreement/disagreement scale. Scores range from 0-144 with higher scores indicating greater allocentrism. R. Singh (personal communication, 12 January, 1992,) has demonstrated the cross-cultural validity of this scale with North American, Indian, New Zealand, and Singaporean students.

Tolerance of Ambiguity was assessed by a modification of Macdonald's (1970) AT-20 which was derived from the Rydell-Rosen Ambiguity Tolerance Scale (Rydell & Rosen, 1966). This 19 item Likert

scale (endpoints; strongly disagree/strongly agree) measures the ability to deal with ambiguous situations and include items such as "there is a right and a wrong way to do almost anything". Scores ranged from 0-114 with higher scores indicating a greater tolerance of ambiguity. Friedland and Keinan (1991) have demonstrated the cross-cultural reliability and validity of this scale with Israeli students.

The Coping Humour Scale is a 7 item scale designed to measure the degree to which individuals use humour to deal with stress (Martin & Lefcourt, 1983); for example, "People should see the funny side of things when dealing with their problems". The personality instrument is scored on a 1( disagree strongly) - 5 (agree strongly ) scale with higher scores (range 0-28) indicating greater use of humour to deal with stressful situations. This is the first time this scale has been tested cross-culturally.

Locus of Control is a 15 item modification of Collins' (1974) adaptation of Rotter's (1966) Internal-External Locus of Control Scale (I-E LOC). The measurement contains attributional statements concerning the degree of perceived control one has over one's life; subjects rely on five point rating scales to indicate the extent of their agreement/disagreement with each statement; for example, "Without the right opportunities one cannot be successful". LOC scores range from 0-60 with higher scores indicative of a more internal locus of control. This scale has been validated cross-culturally with Asian sojourners in New Zealand and New Zealand AFS students abroad (Ward & Kennedy, 1993b, c).

Psychological Adjustment was operationalised as a measure of mood disturbance by utilising the Profile of Mood States (POMS). This instrument has been utilised in the sojourner adjustment literature with a multinational foreign group (Ward & Searle, 1991). This 65 item scale by McNair, Lorr and Droppleman (1971) describes a variety of mood

states commonly associated with the psychological symptoms experienced by sojourners on their move to a new country. These mood states include tension, sadness, anger, fatigue, confusion and vigour. Subjects rate the intensity of their emotional experiences during the past week. Each rating is made on a 1(not at all) to 5 (very much) scale. Scores range from 0-260 with higher scores indicating greater mood disturbance.

## **Procedure**

### **Part 1**

AFS students were sent a postal questionnaire after arriving in New Zealand and invited to participate in the research. Participation was anonymous and voluntary although the invitation was accompanied by a letter of support from AFS. One hundred and thirty-four AFS students replied (57%), however as 5 questionnaires were incomplete and 5 were returned post analysis only 124 were subjected to quantitative analysis.

### **Part 2**

Students from three Christchurch schools (single sex female, single sex male, and co-educational) also participated in the research. Subjects were asked to complete the questionnaire, with the exception of the measure of the POMS, during school time and told that their participation was both voluntary and anonymous.



## RESULTS

Both AFS and normative data were initially subjected to assessments of scalar reliability and validity. Correlational analysis of the independent variables with psychological adjustment was undertaken. In addition scale discrepancy measures (i.e., differences between AFS and New Zealand normative data) were also correlated with psychological adjustment.

### Scalar Reliability and Validity

#### AFS

Preliminary data analysis of the AFS data consisted of testing the internal reliability of each scale using Cronbach's alpha. Most scales proved highly reliable: extraversion (.75), allocentrism/idiocentrism (.80), tolerance of ambiguity (.70), humour (.71), locus of control (.76), and POMS (.95).

An intercorrelation matrix provided evidence of scalar validity. Allocentrism was correlated with low tolerance of ambiguity <sup>3</sup>(-.36,  $p<.001$ ) while an internal locus of control was related to high tolerance of ambiguity <sup>4</sup> (.41,  $p<.001$ ). Humour correlated with extraversion <sup>5</sup> (.15,  $p<.05$ ).

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<sup>3</sup> Hofstede (1980) demonstrated a weak positive relationship between allocentrism and uncertainty avoidance a.k.a. tolerance of ambiguity in his 40 nation study of work related values. Allocentrics tended to be less tolerant of ambiguity than idiocentrics.

<sup>4</sup> Cort and King (1979) reported that American tourists in East Africa who were more tolerant of ambiguity tended to have a more internal locus of control than those tourists who were less tolerant of ambiguity.

<sup>5</sup> Ziv and Gadish (1990) found that higher scores on a sense of humour questionnaire correlated positively with extraversion on a sample of Israeli adolescents

## **Normative**

The normative data was also subjected to internal reliability testing via Cronbach's alpha: extraversion (.73), allocentrism/idiocentrism (.71), tolerance of ambiguity (.68), humour (.80), and locus of control (.82).

## **Analyses**

The pancultural hypotheses (1a, 2b) were analysed by subjecting the AFS data to zero order correlations. Discrepancy (absolute difference) scores were also correlated with psychological adjustment in order to test the culture fit hypotheses (1b, 2a).

## **Zero Order Correlations**

The AFS independent variables and psychological adjustment were subjected to Pearson's Correlational analysis. The following variables correlated significantly with POMS: extraversion (-.23,  $p < .006$ ), coping humour (-.25,  $p < .003$ ), and locus of control (-.26,  $p < .002$ ). More specifically, low mood disturbance is associated with extraversion, reliance on humour to cope with stressful situations, and an internal locus of control.

**Table 1: Zero Order Correlation of Independent Variables and Dependent Variable of AFS Students in New Zealand**

Variables	EXT	ALLO	TOA	HUM	LOC	POMS
EXT		.24***	-.08	.14	.19*	-.23**
ALLO			-.36***	.11	-.18*	-.03
TOA				-.07	.41***	-.12
HUM					-.03	-.25**
LOC						-.26**

\*  $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

Note: EXT = Extraversion; ALLO = Allocentrism; TOA = Tolerance of Ambiguity; HUM = Coping Humour; LOC = Locus of Control; POMS = Profile of Mood States.

### Discrepancy Correlations

Absolute difference measures were obtained by subtracting the normative means of the appropriate scale from the individual scale scores of each subject. The absolute difference scores for extraversion, allocentrism/idiocentrism, tolerance of ambiguity, coping humour, and locus of control were then correlated with the POMS in order to test the cultural fit hypothesis. None of the absolute difference scores correlated with psychological adjustment.

**Table 2: Discrepancy Correlation of Independent Variables with POMS of AFS Students in New Zealand**

<b>Variables</b>	<b>POMS</b>
EXT	.03
ALLO	.10
TOA	.08
HUM	.03
LOC	.03

Note: EXT = Extraversion; ALLO = Allocentrism; TOA = Tolerance of Ambiguity; HUM = Coping Humour; LOC = Locus of Control; POMS = Profile of Mood States.

## DISCUSSION

The major objective of this research was to investigate whether the relationship between personality and adjustment during cross-cultural transitions is or is not dependent upon a host-sojourner match. In line with a cultural fit model of adaptation, it was hypothesised that extraversion and allocentrism would be associated with greater psychological adjustment as sojourners' personalities more closely approximated host culture norms. In contrast, and in line with a pancultural model, it was hypothesised that internal locus of control, tolerance of ambiguity and coping humour would be directly associated with psychological adjustment and would not be dependent on a host-sojourner match.

There was no support for the cultural fit model of personality and adjustment. Host-sojourner discrepancies in personality (locus of control, coping humour, tolerance of ambiguity, extraversion, and allocentrism) were unrelated to psychological adjustment.

Results gave partial support to the pancultural model of personality and adjustment. As predicted, internal locus of control and coping humour were associated with lowered mood disturbance; however tolerance of ambiguity was unrelated to psychological adaptation. Contrary to the hypothesis, extraversion was also associated with lower mood disturbance.

### **Personality and Psychological Adjustment during Cross-cultural Transitions**

This study is consistent with previous findings (e.g., Kuo, Gray & Lin, 1976; Seipel, 1988; Ward & Kennedy, 1992) that an internal locus of

control is conducive to cross-cultural mental health. Given the multicultural sample used in this research, stronger support has been lent to the pancultural model of adaptation; i.e., regardless of country of origin, an internal locus of control is also indicative of psychological adjustment. This finding complements previous research by Ward and Kennedy (1993b) that an internal locus of control is indicative of psychological adjustment for sojourners, irrespective of host country. More specifically, in their study of New Zealand AFS students in 23 countries, the researchers found that regardless of host country, New Zealanders with an internal locus of control experienced greater psychological adjustment than New Zealanders with an external locus of control.

Overall, an internal locus of control seems to provide sojourners with the belief that their behaviour will permit them to change or alter their environment or themselves in order to reduce stress. Seligman (1989), in reference to learned helplessness, claimed that perceived non-contingency or lack of control elicits beliefs in the inescapability of aversive situations. Miller (1979) observed that perceived loss of control can generate augmented stress reactions. Thus, a sojourner who has an external locus of control experiences greater stress because of lack of control over the environment. In contrast, a sojourner with an internal locus of control does not experience the same degree of stress. This relatively lower level of stress results in greater levels of psychological adjustment (Lazarus, 1966).

Coping humour also related to psychological adjustment, lending support for the pancultural mode of adjustment. As coping humour has not been previously researched in the cross-cultural context, these findings break new ground in understanding the specific process of psychological adjustment during cross-cultural transitions. They also

support the employment of a stress and coping model as a paradigm to study the process of cross-cultural transitions.

Several researchers have found that humour served as a stress buffer against negative life events (e.g., Lefcourt & Martin, 1986; Nezu, Nezu, & Blissett, 1988; Porterfield, 1987). Others have theorised on the mechanisms involved. For example, Dixon (1980) believed that humour relieved stress by being turned against the stressor; i.e. by responding humourously to a stressor, the individual regains mastery over the stressor, thus reducing its influence on psychological well being. O'Connell (1976) posited that the cognitive shift involved in producing humour would serve to distance the individual from the immediate threat of a stressful situation.

The use of humour to cope with stress is obviously an applicable variable to use in a stress and coping paradigm. By using humour to cope with stress, the sojourners were able to distance themselves from the distress of the cross-cultural transition.

Contrary to expectations, extraversion was related directly to psychological adjustment but not via cultural fit. This result appears to be in line with Gardner's (1962) concept of the universal communicator whose personality is of the extravert type. However, a more Eysenckian perspective may be more instructive. Extraverts seek stimulation. A cross-cultural transition provides sojourners with a great deal of stimulation. Thus, extravert sojourners are more likely to appraise a new culture as less stress provoking (because they welcome the novelty and stimulation of a new culture) than introvert sojourners.

These personality traits appear to fit well within the stress and coping framework. This study seems to have lent some support to the use of a stress and coping framework in the area of cross-cultural transition and adjustment.

Contrary to predictions, tolerance of ambiguity was unrelated to psychological adjustment. One possible explanation for this is that tolerance of ambiguity may be related to psychological adjustment in a curvilinear fashion. Gao and Gudykunst (1990), for example, noted that their data appeared to fit a curvilinear relationship between uncertainty reduction and psychological adjustment. They suggest that some uncertainty is necessary to initiate adjustment responses.

### **Failure to Obtain Evidence for the Culture Fit Model**

There are several possible explanations to account for the failure of extraversion and allocentrism to demonstrate the culture fit concept. The means of the variables for both the sojourner and host groups were practically identical. In addition, the within group variance of the sojourners was very low. Similar means and low variance markedly decrease the likelihood of obtaining significant correlations between the absolute discrepancy measurements and the dependent measure.

Host-sojourner similarity, in this instance, may have been enhanced by AFS selection and placement procedures. AFS use criteria to place students in host families in a manner that reflects the culture fit concept (AFS International/Intercultural Programs, 1985). For example, AFS recommend that female students who have a strong need to maintain equal status with males should not be placed in host families that expect females to behave deferentially and subordinately to males. Given that New Zealand is a reasonably homogenous culture and that AFS attempts to place students in families that will provide a complementary and satisfactory home life, the argument could be made



that a reasonably homogenous group of AFS students were sent to the reasonably homogenous country of New Zealand.

A more speculative reason for the lack of significant results is related to the return rate of the postal questionnaire. Even though the return rate (57%) of questionnaires was higher than the 30% norm for postal surveys (Shaughnessy & Zechmeister, 1985), almost half the AFS students did not complete the questionnaire. Those sojourners who did not respond, may not have done so because they were distressed from the sojourn. This is one possible bias that may have influenced the data and diminished sample variance but other biases may also have impacted on the data, due to the incomplete return rate.

A third factor which may have contributed to the failure to support the model of cultural fit pertains to the New Zealand sample. Conceptually, it appeared that using New Zealand high school students to compose the national norm was rational because the sojourners were also high school students. However, the sojourners would also spend much of their time interacting with other New Zealanders. Thus, a more appropriate New Zealand norm may consist of a more representative sample of New Zealand adults and students. C. Ward and W. Chang's (personal communication, 12 February, 1994) study, which supported a cultural fit model of adaptation, utilised an almost representative sample of Singaporean adults as a norm. In this instance they found that greater discrepancies in extraversion between host and sojourner were associated with impaired psychological adjustment. Thus, in this research, it is possible that a representative sample of New Zealanders would be a more appropriate normative sample than a solely student sample.

## **Suggestions for Future Research**

A better design to test both panculturalism and cultural fit would involve a multinational sample of sojourners living in reciprocal countries; e.g.; ten samples from each of ten countries (i.e., a total of 100 samples) would be sent to each country involved in the study. Normative measures would be obtained from a matched sample in each culture. These norms would be utilised in relation to the incoming sojourners (allowing further exploration of cultural fit) and could also be used as a comparison with that culture's sojourning students, enabling researchers to compare the process of adjustment or change during the sojourn. If the personality measures that supported panculturalism in this study were effective as variables in the proposed study for all sojourners, we could confidently claim the discovery of panculturally adjustive personality traits.

## **Conclusion**

This thesis explored the concepts of culture fit and panculturalism in relation to personality and psychological adjustment during cross-cultural transitions. In so doing, several conceptual and methodological ideas were explored. A new variable in the cross-cultural transition literature was tested and validated; i.e., the use of humour to cope with stress appeared to be a robust predictor of psychological adjustment. Discrepancy scores (a relatively untried methodological technique) were employed to measure culture fit. This method failed to support the concept of culture fit, but psychological adjustment was directly related to an internal locus of control, the use of humour to cope with stress, and extraversion. The research presented here has increased

our knowledge of the process of adjustment during cross-cultural transitions.

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## APPENDIX

## Questionnaire

## Background Information

1. Country of Origin.....
2. Home Telephone Number.....
3. Age.....
4. Sex (Please Tick)                                  Male ( )                                  Female ( )
5. Did you receive any cross-cultural training prior to your arrival in New Zealand?      Yes ( )    No ( )
6. Was it  
Excellent ( )    Good ( )    Average ( )      Poor ( )    Not Applicable ( )
7. How would you describe your relationship with your host family?  
Excellent ( )      Good ( )                  Average ( )                  Poor ( )
8. How would you describe your ability to read English?  
Excellent ( )      Good ( )                  Average ( )                  Poor ( )

Excellent ( )      Good ( )      Average ( )      Poor ( )

Allocentrism/Idiocentrism

Please indicate in the box on the right, the extent of your agreement or disagreement with each statement along the following 9 point scale.

1-----2-----3-----4-----5-----6-----7-----8-----9		
Strongly	Neither	Strongly
Disagree	Disagree	Agree
	Nor Agree	

1. There should be at least one meeting of all the close relatives every year.
2. One should not always pay attention to friends' view on what one should really do.
3. One should enjoy meeting and talking to one's neighbours.
4. To do well at one's job, one has to take help from co-workers.
5. The husband and wife should jointly decide whether the wife should work.
6. When a close relative is in financial difficulty, one should lend assistance.
7. One should know one's neighbours well.
8. Neighbours' problems should not bother us at all
9. A cousin should be treated like one's brother or sister.
10. To earn good grades, students should take help from classmates.
11. Personal problems need not be disclosed to even close relatives.
12. An uncle should be treated like a father.
13. One should count on one's relatives for help in any kind of trouble
14. Classmates should form study groups for the benefit of all.
15. One need not give advice to friends on what they should do.
16. It may be unwise on the part of our relatives to advise us on what we should do.
17. It is not necessary to know one's neighbours.
18. The wife must look after the relatives of the husband.
19. One should avoid advising relatives on what they should do.
20. On social occasions, neighbours must be invited.
21. How we live our life should not be the concern of our relatives.
22. The husband need not be responsible for looking after the wife's relatives.
23. One should consult one's neighbours during difficult times.
24. One should live as close to one's friends as possible.



## Coping Humour

This scale is concerned with the way you express and experience humour. There are no right or wrong answers to these questions. Please respond to the statements using the following scale:

- 1= strongly agree
- 2= mildly agree
- 3= neither agree nor disagree
- 4= mildly disagree
- 5= strongly disagree

1. I often lose my sense of humor when I'm having problems.
2. I tend to see the funny side of things when considering my problems.
3. I often make jokes when I'm feeling tense.
4. I must admit my life would probably be easier if I had more of a sense of humour.
5. When I am in a situation where I have to laugh or cry, I usually laugh.
6. I can usually find something to laugh or joke about even in trying situations.
7. I usually see the comedy in stressful situations.

### Extraversion/Introversion

Please answer each of the following questions circling either YES or NO.

- |   |     |    |
|---|-----|----|
| 1. Do you have many different hobbies?                                  | YES | NO |
| 2. Are you a talkative person?  | YES | NO |
| 3. Are you rather lively?   | YES | NO |
| 4. Can you usually let yourself go and enjoy yourself at a party?       | YES | NO |
| 5. Do you enjoy meeting new people?                                     | YES | NO |
| 6. Do you tend to keep in the background on social occasions?           | YES | NO |
| 7. Do you like going out a lot?   | YES | NO |
| 8. Do you prefer reading to meeting people?                             | YES | NO |
| 9. Do you have many friends?  | YES | NO |
| 10. Would you call yourself happy-go-lucky?                             | YES | NO |
| 11. Do you usually take the initiative in making new friends?           | YES | NO |
| 12. Are you mostly quiet when you are with other people?                | YES | NO |
| 13. Can you easily get some life into a rather dull party?              | YES | NO |
| 14. Do you like telling jokes and funny stories to your friends?        | YES | NO |
| 15. Do you like mixing with people?                                     | YES | NO |
| 16. Do you nearly always have a 'ready answer' when people talk to you? | YES | NO |
| 17. Do you like doing things in which you have to act quickly?          | YES | NO |
| 18. Do you often take on more activities than you have time for?        | YES | NO |
| 19. Can you get a party going?  | YES | NO |
| 20. Do you like plenty of bustle and excitement around you?             | YES | NO |
| 21. Do other people think of you as being very lively?                  | YES | NO |

## Locus of Control

Please express your reaction to each statement by indicating your response on a 1 to 5 scale as follows :

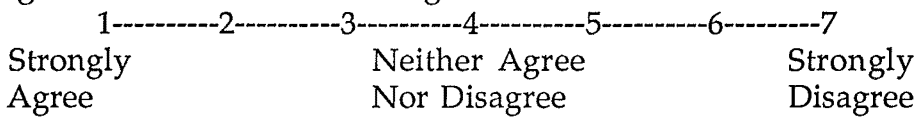
- 1 = disagree strongly
- 2 = disagree mildly
- 3 = neutral, neither agree or disagree
- 4 = agree mildly
- 5 = agree strongly

Mark your answer (1, 2, 3, 4 or 5) in the answer column on the far right of the page. Read each item carefully, but give your immediate response.

1. Without the right opportunities one cannot be successful.
2. Most people do not realize the extent to which their lives are controlled by accidental happenings.
3. Getting a good job depends mainly on being in the right place at the right time.
4. Unfortunately, an individual's worth often passes unnoticed no matter how hard s/he tries.
5. Many times I feel I have little influence over what is happening to me.
6. Many times success tends to be so unrelated to work that making an effort is really useless.
7. Sometimes I feel that I do not have enough control over the direction my life is taking.
8. Many of the unhappy things in people's lives are partly due to bad luck.
9. Most of us are victims of forces we can neither understand nor control.
10. It is not always wise to plan too far ahead because many things just turn out to be a matter of good or bad fortune.
11. Most of the time I cannot understand why people behave the way they do.
12. Many times we might as well decide what to do by tossing a coin.
13. Sometimes I cannot understand how bosses arrive at their employee evaluations.
14. Who gets ahead often depends on who was lucky enough to be in the right place first.
15. There is really no such thing as luck.

Tolerance of Ambiguity

Using the following scale, please indicate your level of agreement/ disagreement with the following statements.



1. A problem has little attraction for me if I don't think it has a solution.
2. I am just a little uncomfortable with people unless I feel that I can understand their behaviour.
3. There's a right way and a wrong way to do almost everything
4. I would rather take a big risk for a possible large return than a small risk for an almost certain small return.
5. The way to understand complex problems is to be concerned with their larger aspects instead of breaking them into smaller pieces.
6. I get pretty anxious when I'm in a social situation over which I have no control.
7. Practically every problem has a solution.
8. It bothers me when I don't know how other people react to me
9. I have always felt that there is a clear difference between right and wrong.
10. It bothers me when I don't know how other people react to me.
11. Nothing gets accomplished in this world unless you stick to some basic rules.
12. If I were a doctor, I would prefer the uncertainties of a psychiatrist to the clear and definite work of someone like a surgeon or X-ray specialist.
13. Vague and impressionistic pictures really have little appeal to me.
14. If I were a scientist, it would bother me that my work would never be completed (because science will always make new discoveries).
15. Before an examination, I feel much less anxious if I know how many questions there will be.
16. The best part of a jigsaw puzzle is putting in that last piece.
17. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to do.
18. I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.
19. I like to fool around with new ideas, even if they turn out later to be a total waste of time.
20. Perfect balance is the essence of all good composition.

## Profile of Mood States

Below is a list of words that describe feelings people have. Please read each one carefully and indicate the response which best describes HOW YOU HAVE BEEN FEELING DURING THE PAST WEEK INCLUDING TODAY. Your response should be on a 1 - 5 scale as follows:

- 1 = not at all  
 2 = a little  
 3 = moderately  
 4 = quite a bit  
 5 = extremely

Mark your answer (1 ,2, 3, 4, or 5) in the column to the right of each item.

- |                           |        |                            |        |
|---------------------------|--------|----------------------------|--------|
| 1. friendly               | ( )1.  | 34. nervous                | ( )34. |
| 2. tense                  | ( )2.  | 35. lonely                 | ( )35. |
| 3. angry                  | ( )3.  | 36. miserable              | ( )36. |
| 4. run down               | ( )4.  | 37. disorganized           | ( )37. |
| 5. unhappy                | ( )5.  | 38. cheerful               | ( )38. |
| 6. clear-headed           | ( )6.  | 39. bitter                 | ( )39. |
| 7. lively                 | ( )7.  | 40. exhausted              | ( )40. |
| 8. confused               | ( )8.  | 41. anxious                | ( )41. |
| 9. sorry for things done  | ( )9.  | 42. ready to fight         | ( )42. |
| 10. insecure              | ( )10. | 43. good-natured           | ( )43. |
| 11. distracted            | ( )11. | 44. pessimistic            | ( )44. |
| 12. irritated             | ( )12. | 45. desperate              | ( )45. |
| 13. considerate           | ( )13. | 46. slow                   | ( )46. |
| 14. sad                   | ( )14. | 47. rebellious             | ( )47. |
| 15. active                | ( )15. | 48. helpless               | ( )48. |
| 16. agitated              | ( )16. | 49. overworked             | ( )49. |
| 17. unpleasant            | ( )17. | 50. puzzled                | ( )50. |
| 18. melancholic           | ( )18. | 51. alert                  | ( )51. |
| 19. energetic             | ( )19. | 52. misinformed            | ( )52. |
| 20. panicky               | ( )20. | 53. furious                | ( )53. |
| 21. hopeless              | ( )21. | 54. efficient              | ( )54. |
| 22. relaxed               | ( )22. | 55. trusting               | ( )55. |
| 23. unworthy              | ( )23. | 56. enthusiastic           | ( )56. |
| 24. spiteful              | ( )24. | 57. bad-tempered           | ( )57. |
| 25. sympathetic           | ( )25. | 58. worthless              | ( )58. |
| 26. uneasy                | ( )26. | 59. forgetful              | ( )59. |
| 27. restless              | ( )27. | 60. untroubled             | ( )60. |
| 28. unable to concentrate | ( )28. | 61. terrified              | ( )61. |
| 29. lacking energy        | ( )29. | 62. guilty                 | ( )62. |
| 30. helpful               | ( )30. | 63. forceful               | ( )63. |
| 31. annoyed               | ( )31. | 64. uncertain about things | ( )64. |
| 32. discouraged           | ( )32. | 65. tired                  | ( )65. |
| 33. displeased            | ( )33. |                            |        |